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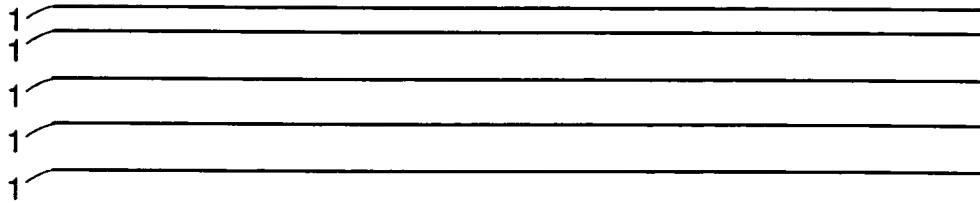


FIG. 1A

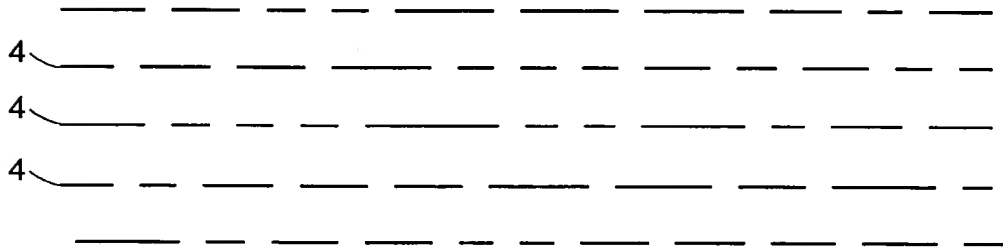


FIG. 1B

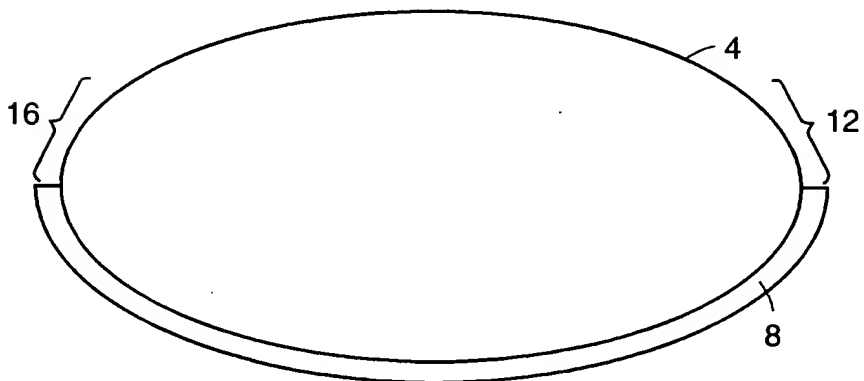


FIG. 1C

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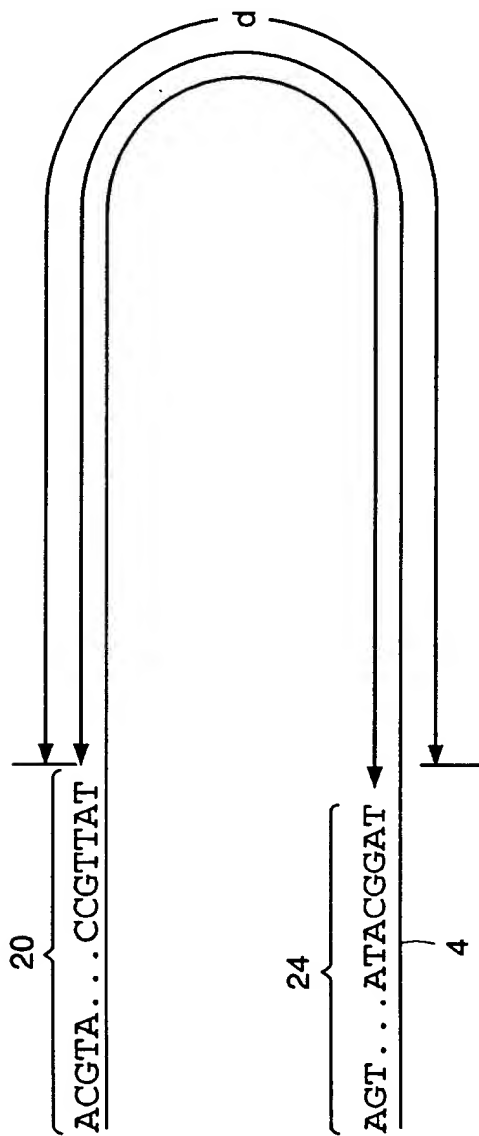


FIG. 1D

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Table of Reads

| <u>Read</u> | <u>Sequence</u> |
|-------------|-----------------|
| 1, F        | CCTGCGCC        |
| 3, F        | TAGCCCTG        |
| 14, R       | GCCTATCG        |
| 50, R       | CCCTGCGC        |
| 61, F       | ATAGCCCT        |
| 105, F      | AGAGGGTT        |

Table of Subsequences

| <u>Subsequence</u> | <u>Read Number</u> | <u>Read Direction</u> |
|--------------------|--------------------|-----------------------|
| CCTG               | 1                  | F                     |
| CTGC               | 1                  | F                     |
| TGCG               | 1                  | F                     |
| GCGC               | 1                  | F                     |
| CGCC               | 1                  | F                     |
| TAGC               | 3                  | F                     |
| AGCC               | 3                  | F                     |
| GCCC               | 3                  | F                     |
| CCCT               | 3                  | F                     |
| CCTG               | 3                  | F                     |
| GCCT               | 14                 | R                     |
| CCTA               | 14                 | R                     |
| CTAT               | 14                 | R                     |
| TATC               | 14                 | R                     |
| ATCG               | 14                 | R                     |
| CCCT               | 50                 | R                     |
| CCTG               | 50                 | R                     |
| CTGC               | 50                 | R                     |
| TGCG               | 50                 | R                     |
| GCGC               | 50                 | R                     |
| ATAG               | 61                 | F                     |
| TAGC               | 61                 | F                     |
| AGCC               | 61                 | F                     |
| GCCC               | 61                 | F                     |
| CCCT               | 61                 | F                     |
| AGAG               | 105                | F                     |
| GAGG               | 105                | F                     |
| AGGG               | 105                | F                     |
| GGGT               | 105                | F                     |
| GGTT               | 105                | F                     |

FIG. 2

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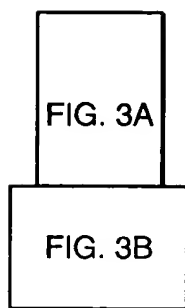


FIG. 3

Table of Sorted Subsequences

| <u>Subsequence</u> | <u>Read Number</u> | <u>Read Direction</u> |
|--------------------|--------------------|-----------------------|
| AGAG               | 105                | F                     |
| AGCC               | 3                  | F                     |
| AGCC               | 61                 | F                     |
| AGGG               | 105                | F                     |
| ATAG               | 61                 | F                     |
| ATCG               | 14                 | R                     |
| CCCT               | 3                  | F                     |
| CCCT               | 50                 | R                     |
| CCCT               | 61                 | F                     |
| CCTA               | 14                 | R                     |
| CCTG               | 1                  | F                     |
| CCTG               | 3                  | F                     |
| CCTG               | 50                 | R                     |
| CGCC               | 1                  | F                     |
| CTAT               | 14                 | R                     |
| CTGC               | 1                  | F                     |
| CTGC               | 50                 | R                     |
| GAGG               | 105                | F                     |
| GCCC               | 3                  | F                     |
| GCCC               | 61                 | F                     |
| GCCT               | 14                 | R                     |
| GCGC               | 1                  | F                     |
| GCGC               | 50                 | R                     |
| GGGT               | 105                | F                     |
| GGTT               | 105                | F                     |
| TAGC               | 3                  | F                     |
| TAGC               | 61                 | F                     |
| TATC               | 14                 | R                     |
| TGCG               | 1                  | F                     |
| TGCG               | 50                 | R                     |

FIG. 3A

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Table of Read Pairs with Common Subsequences

| <u>Read Pair</u> | <u>No. of Common Subsequences (Subsequences)</u> |
|------------------|--|
| (3, 61)          | 4 (AGCC, CCCT, GCCC, TAGC)                       |
| (3, 50)          | 2 (CCCT, CCTG)                                   |
| (50, 61)         | 1 (CCCT)   |
| (1, 3)           | 1 (CCTG)   |
| (1, 50)          | 4 (CCTG, CTGC, GCGC, TGCG)                       |

FIG. 3B

CCTGCGCC<sup>1, F</sup>  
 CCTGCGC<sup>50, R</sup>  
<sup>3, F</sup>TAGCCCTG GCCTATCG<sup>14, R</sup>  
<sup>61, F</sup>ATAGCCCT  
 ATAGCCCTGCGCCTATCG

FIG. 4

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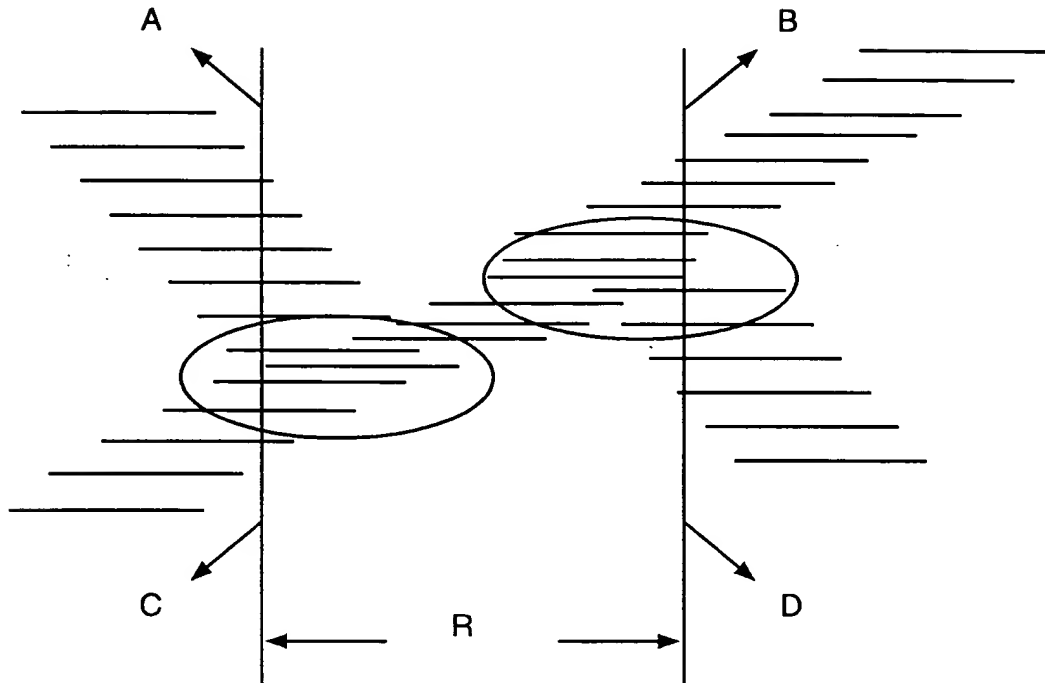


FIG. 5

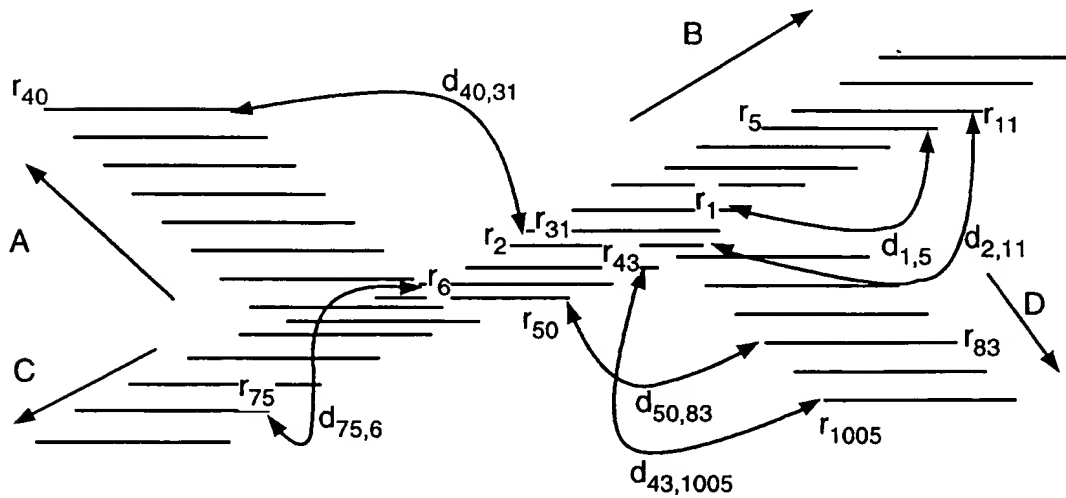


FIG. 6

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```
CGATATAT
GCCGATAT
CGCCGATA
GCGCCCAT      CCTGCGCC
CCCATAGC CTGGGCCT
AGCCCTGC
CCATAGCC TGGCCTA
TAGCCCTG GCCTATCG
ATAGCCCT  CCTATCGC
TGATAGCC
ATCGTGAT
ATAGCCCTGCGCC
A → GCGCCC      GATATAT ← B
C → ATCGTG      TATCGC ← D
      |← R →|
```

FIG. 7

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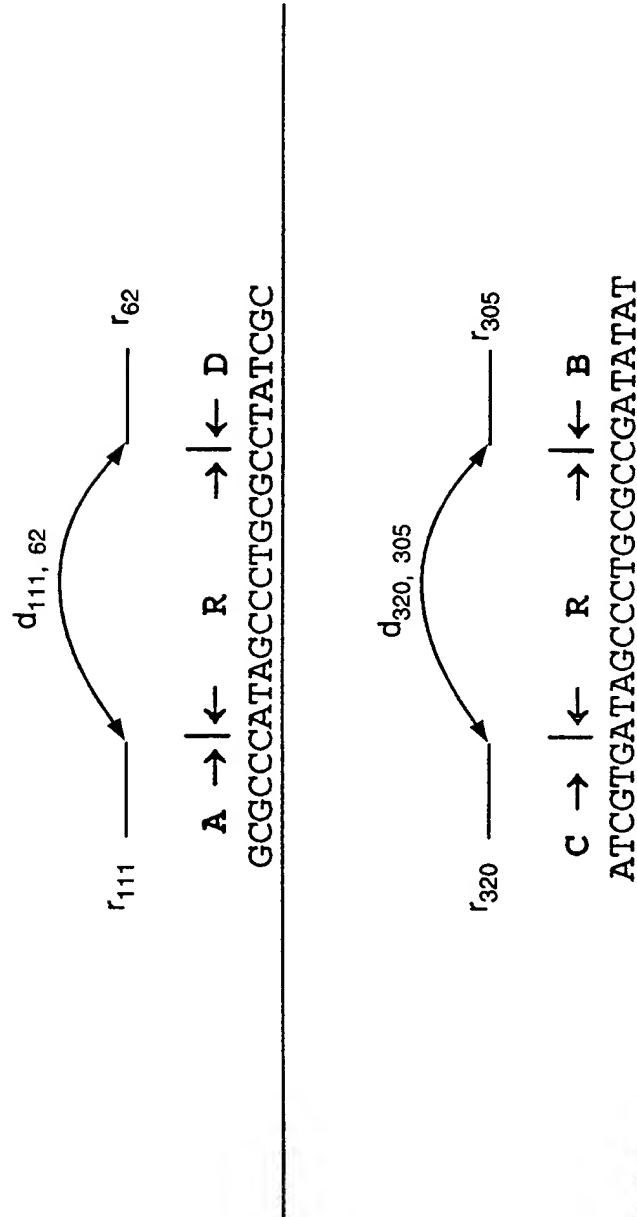


FIG. 8



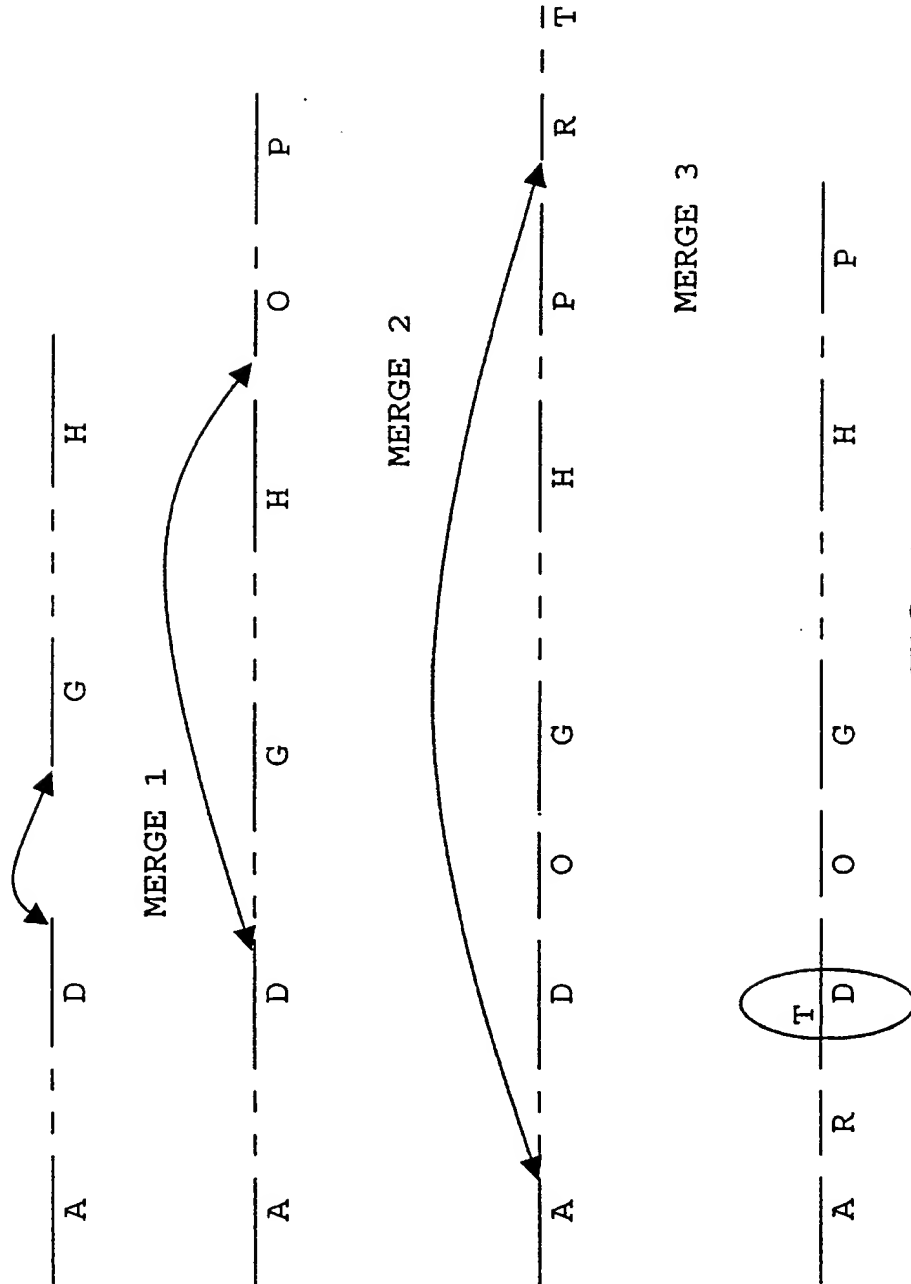


FIG. 9